# REPORT RESUMES

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TEACHERS' BELIEFS, CLASSROOM ATMOSPHERE AND STUDENT BEHAVIOR.
FINAL REPORT.
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THIS FINAL REPORT CONSISTS OF 3 SECTIONS. ITS CONCERN IS WITH THE INTERACTION OF HOME AND CLASSROOM ENVIRONMENTS ON THE ACHIEVEMENT OF LOWER SOCIOECONOMIC LEVEL CHILDREN WHO ATTENDED OR WERE ELIGIBLE TO ATTEND THE 1965 COLORADO HEAD START PROGRAM. SECTION 1 REPLICATES AND ELABORATES A STUDY ON THE EXISTENCE OF CONCRETE AND ABSTRACT BELIEF SYSTEMS IN TEACHERS AND ON HOW SUCH BELIEF SYSTEMS EFFECT CLASSROOM ATMOSPHERE. THE SAME ELEMENTS WERE INVESTIGATED IN THIS STUDY IN ADDITION TO THE PRIMARY OBJECTIVE OF OBSERVING THE EFFECT OF THE 2 BELIEF SYSTEMS ON STUDENT PERFORMANCE. THE HYPOTHESIS THAT THE GREATER THE ABSTRACTNESS OF THE TEACHER'S BELIEF SYSTEM, THE GREATER WOULD BE HER RESOURCEFULNESS, THE LESS HER DICTATORIALNESS AND PUNITIVENESS, AND THE BETTER THE ACADEMIC PERFORMANCE OF THE PUPILS WAS DEMONSTRATED. SECTION 2 IS A FAMILY SURVEY USED TO DETERMINE FAMILY ATTITUDES AND VALUES WHICH WERE THEN ANALYZED TO SEE IF AND HOW SUCH ATTITUDES RELATED TO THE CHILD'S PERFORMANCE IN HEAD START AND IN PUBLIC SCHOOL. SECTION 3 PRESENTS THE CHILDREN'S PERFORMANCE SCORES OBTAINED DURING THEIR ATTENDANCE IN PUBLIC SCHOOL AT THE PRIMARY LEVEL. THE TEST MATERIALS WERE MOVIE FILMS OF 13 BRIEF SITUATIONS RELEVANT TO SOME ASPECT OF THE CHILD'S BEHAVIOR AND ON WHICH HE WAS ASKED TO COMMENT. THE SCORES OF THESE TESTS WERE THEN COMBINED WITH THE INFORMATION FROM SECTIONS 1 AND 2 TO SHOW THE RESULTS OF THE INTERACTION OF THE 3 VARIABLES OF TEACHER, PUPIL, AND PARENT ON PUPIL PERFORMANCE. (WD)

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1274 REPORT

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# Teachers' Beliefs, Classroom Atmosphere and Student Behavior[1]

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## Footnotes

1. The collection of these data and part of their analyses were supported by the Office of Economic Opportunity, Contract OEO-1274 with the Extension Division of the University of Colorado.

2. Harvey's participation in the data collection part of this study occurred while he was a Fellow at the Center for Advanced Study in the Behavioral Sciences. His subsequent participation has been supported by a Career Development Award from the National Institute of Mental Health.

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PS 000276

Harvey, White, Prather, Alter and Hoffmeister (1966) found recently that preschool teachers of concrete and abstract belief systems differed markedly in the classroom environments they created for their students. Teachers representing System 4, the most abstract belief system treated by Harvey, Hunt and Schroder (1961) differed from representatives of System 1, the most concrete mode of functioning characterized by Harvey *et al*. (1961), in what was presumed to be an educationally desirable direction on all 26 dimensions of classroom behavior on which they were rated.

The difference was statistically significant on 14 dimensions: System 4 teachers expressed greater warmth toward children, showed greater perceptiveness of the children's wishes and needs, were more flexible in meeting the interests and needs of the children, were more encouraging of individual responsibility, gave greater encouragement to free expression of feelings, were more encouraging of creativity, displayed greater ingenuity in improvising teaching and play materials, invoked unexplained rules less frequently, were less rule oriented, were less determining of classroom and playground procedure, manifested less need for structure, were less punitive, and were less anxious about being observed.

A cluster analysis of these 14 dimensions (Tryon & Bailey, 1965, 1966) yielded the three factors of resourcefulness, dictatorialness and punitiveness. System 4 teachers were more resourceful, less dictatorial and less punitive than System 1 teachers.

PS 000276

While consistent both with our theoretical stance and a wide range of other differences found between the more concretely and the more abstractly functioning individuals (e.g., Adams, Harvey & Heslin, 1966; Harvey, 1963; 1966; Harvey & Ware, 1967; Ware & Harvey, 1967; White & Harvey, 1965), the finding that teachers' belief systems affect their overt behavior in the classroom does not bear directly upon the more educationally significant question of the influence of teachers' beliefs and behavior upon the learning and performance of their students. It is with this latter question that the present study is concerned.

More specifically, the main aim of this study was to assess the relationship between students' performance and teachers' resourcefulness, dictatorialness and punitiveness. In addition, the study provided a test of the replicability of the earlier findings that concrete and abstract teachers differ in the kinds of classroom behavior they manifest.

The general expectancies were that teachers of more concrete belief systems would display less resourcefulness, more dictatorialness and more punitiveness in the classroom than the more abstract teachers, as found in the previous study (Harvey, _et al_,,1966); and that greater abstractness, greater resourcefulness, less dictatorialness and less punitiveness on the part of the teacher would be associated with more educationally preferable performances of the children.

## Method

Concrete and abstract teachers of kindergarten and first grade were rated on the 14 dimensions found by Harvey _et al_. (1966) to discriminate significantly between concrete and abstract teachers. Their students were rated, as a class, on a specially constructed 31-item rating scale.

_Teacher Rating Scale_. This instrument, while providing the necessary information for a test of the replicability of the earlier results (Harvey, _et al_., 1966), was intended primarily as a measure of teachers'overt resourcefulness, dictatorialness and punitiveness. It consisted of the 14 items from which these three factors were derived: (1) warmth toward the children, (2) perceptiveness of the children's needs and wishes, (3) flexibility in meeting the needs and interests of the children, (4) maintenance of relaxed relationships with the children, (5) encouragement of individual responsibility, (6) encouragement of free expression of feelings, (7) encouragement of creativity, (8) ingenuity in improvising teaching and play materials, (9) use of unexplained rules, (10) rule orientation, (11) determination of classroom procedures, (12) need for structure, (13) punitiveness and (14) anxiety induced by the observers' presence.

_Student Rating Scale_. This measure of student behavior, which provided the major dependent variables of this study, consisted of the following items: (1) overall adherence to the teacher's rules, (2) immediacy of response to the rules, (3) adherence to the spirit(vs. the letter) of the rules,

(4) information seeking, (5) independence, (6) cooperativeness with the teacher (7) task attentiveness, (8) enthusiasm, (9) voice in classroom activities, (10) voluntary participation in classroom activities, (11) free expression of feelings, (12) diversity of goal relevant activities, (13) student-initiated activity, (14) amount of activity (15) considerateness toward classmates, (16) reciprocal affection between classmates, (17) cooperation with classmates, (18) taking turns with classmates, (19) amount of interaction with classmates, (20) novelty of response to problem or teacher's question, (21) appropriateness of response, (22) accuracy of facts, (23) integration of facts, (24) orientation toward specificity of facts (vs. more general principles), (25) roteness of answers or solutions, (26) active hostility toward the teacher, (27) passive hostility toward the teacher, (28) fear attentiveness (anxiety), (29) aggression toward classmates, (30) guidance seeking, and (31) approval seeking.

Each of the dimensions in both the teacher and student rating scale was rated on a six-point scale: 3, 2, and 1 for "far," "considerably" and "slightly," above average respectively; and -1, -2, and -3 for "slightly," "considerably" and "far" below average respectively. The "average" category was omitted with the aim (by creating a forced choice condition) of avoiding the common tendency of observers (_O_s) to assign a wide variety of discriminably different behaviors to this category. Through a training program described later, an attempt was made to establish equivalent "averages" for all _O_s.

## Subjects

Since the present study was part of a larger investigation concerned with the effects of prior participation in Head Start, classrooms were selected for observation if they contained at least one kindergarten or first grade student who had gone to Head Start nine months earlier (i.e., during the summer of 1965) and who was attending public school for the first time. These criteria yielded 118 classes, 92 kindergarten and 26 first grade, in 18 rural and urban Colorado school districts. The 92 kindergarten classes were taught by 64 teachers while the 26 first grade classes were taught by 26 teachers. Each of the 118 classes, with an average of 26 students, was observed and rated _as a class_, not as individual students, on the student rating scale.

Of the 90 teachers, 67 completed the "This I Believe" (TIB) Test and 66 completed the Conceptual Systems Test (CST). Both the TIB and CST are tests of concreteness-abstractness of belief systems, the former being based upon sentence completions and the latter upon response to objective items.

_The "This I Believe" (TIB) Test_. This test, developed specifically as a measure of concreteness-abstractness of conceptual or belief systems (e.g., Harvey, 1964, 1966; Harvey, _et al_., 1966; Ware & Harvey, 1967; White & Harvey, 1965), requires _S_ to indicate his beliefs about a number of socially and personally relevant concept referents by completing in two or three sentences the phrase "This I believe about__________." the blank being replaced successively by one of the referents.

The referents employed in the present study were "religion," "friendship," "the American way of life," "sin," "education," "the family," "people on welfare," "punishment," "teaching," and "sex."

From the relativism, tautologicalness, novelty and connotative implications or richness of the completions, together with criteria implied below, respondents may be classified into one of the four principal systems posited by Harvey _et al_. (1961) or into some admixture of two or more systems.

More specifically, _S_s are classified as representing _predominantly_ System 1, the most concrete mode of dimensionalizing and construing the world, if their completions denote such characteristics as high absolutism, high tautologicalness, high frequency of platitudes and normative statements, high ethnocentrism, high religiosity, assertion of the superiority of American morality and expression of highly positive attitudes toward institutional referents.

Subjects are categorized as representing System 2, the next to the lowest level of abstractness, if, in addition to being highly evaluative and absolute, they express strong negative attitudes toward such referents as marriage, religion, the American way of life--the same referents toward which System 1 representatives manifest highly positive attitudes.

Responses to the TIB are scored as representing System 3 functioning, the next to the highest level of abstractness posited by Harvey, _et al_. (1961), if they indicate more relativism and less evaluativeness than Systems 1 and 2 and at the same time express strongly positive beliefs about friendship, people and interpersonal relations.

System 4 functioning, the highest of the four levels of abstractness, is indicated by TIB responses that imply a high degree of novelty and appropriateness, independence without negativism, high relativism and contingency of thought, and the general usage of multidimensional rather than unidimensional interpretive schemata.

Of the 67 teachers who completed the TIB, 50 were classified as System 1, none was categorized as System 2, four were scored as System 3, eight were classified as weak instances of System 4, and five were scored as admixtures of Systems 1 and 3. In the analysis involving the TIB the admixtures were omitted; Systems 3 and 4 were combined into the more abstract group; and System 1 teachers were treated as the more concrete group. Of the 50 concrete teachers, 30 taught 44 classes of kindergartners and 20 taught 20 classes of first-graders. Seven of the 12 abstract teachers taught 11 kindergarten classes while the other five abstract teachers taught five first-grade classes. Thus it should be noted that while both concrete and abstract first grade teachers each taught only one class, kindergarten teachers, both concrete and abstract, each taught an approximate average of 1 1/2 classes.

The Conceptual Systems Test (CST). All but one of the 67 teachers who completed the TIB Test also completed the objective measure of belief systems, the CST. From a pool of several hundred items and numerous runs through Tryon's program of cluster analysis (Tryon & Bailey, 1965; 1966) seven factors have been extracted and replicated which are theoretically consistent with the major characteristics of the four principal belief systems posited by Harvey, et al. (1961). These factors as we have tentatively labeled them (Harvey, 1967) are (1) Divine Fate Control, (2) Need for Simplicity-Certainty, (3) Need for Structure-Order, (4) Distrust of Social Authority, (5) Friendship Absolutism, (6) Moral Absolutism, and (7) General Pessimism.

While the CST was administered in its entirety, for purposes of this study scores were derived for only the three clusters of Divine Fate Control, Need for Simplicity-Certainty and Need for Structure-Order. The combined scores from these three factors were treated as our second measure of a teacher's concreteness-abstractness. Representative items comprising each of the three of these component factors include:

1. Divine Fate Control (DFC) is assessed by such items as "There are some things which God will never permit man to know," "In the final analysis, events in the world will be in line with the master plan of God," and "I believe that to attain my goals it is only necessary for me to live as God would have me live."

2. Need for Simplicity-Certainty (NS-C) is inferred from response to such statements as "I dislike having to change my plans in the middle of a task," "It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes," and "A group which tolerates extreme differences of opinion among its own members cannot exist for long."

3. Need for Structure-Order (NS-O) is derived from such items as "I don't like to work on a problem unless there is a possibility of coming out with a clear-cut, definite answer," "I don't like for things to be uncertain and unpredictable," and "I like to have a place for everything and everything in its place."

Training of observers and assessment of inter-observer reliability. Each of the nine Os, all females, participated in six training sessions during which six teachers and their classes were observed and independently rated. Each observation session was followed by a lengthy group discussion among the Os and other staff members aimed at increasing the reliability of the ratings through improving observation techniques and clarifying and standardizing meaning and usage of the rating categories.

Inter-judge reliability for the nine Os was assessed for both the teacher and student rating scales at three points: immediately following the last training session, one week after field observations began, and immediately preceding completion of the experimental observations, 2 weeks later. The mean correlation between every pair of judges for the teacher scale was .78, .76 and .70 for the three periods respectively; the corresponding reliability values for the student scale were .84, .75 and .77.

Procedure. Each teacher and her students were observed in the classroom on a single occasion by a single O for approximately two hours. All teachers had been advised earlier by their principals of the dates on which they were to be observed.

Observation occurred during normal classroom activities on a day free of special events in order to render the conditions of observation as comparable as possible across classrooms. The O arrived before class, introduced herself, explained (with the aim of allaying the teacher's apprehension and fostering her cooperation) that the purpose of the visit was to gather examples of good teaching procedure that could be utilized as bases for future teacher training programs, and requested that she be allowed to observe while remaining as inconspicuous as possible in order to minimize the effects of her presence upon the children. To further O's unobtrusiveness and simultaneously to increase the liklihood of both the teacher and her students behaving in their usual fashion, each teacher was asked not to converse with O during the observation period.

The teacher and her class were rated by the same O, the students being observed and rated first as independently as possible of the teacher's behavior. This procedure was aimed at minimizing the contamination between the dependent and independent variables likely to result from the students and teacher being rated by the same O. Extensive pretesting indicated that this procedure, of having the O first concentrate on and rate the behavior of the students as a class before focusing on the teacher, yielded a relationship between student and teacher ratings that was no higher than that between separate ratings of the teacher and her students by different judges. In fact, the evidence indicated clearly that, while the use of a single _O_ for both the teacher and her students may have produced contamination, at the same time it produced seemingly more valid ratings than those yielded by the practice of one judge observing only the teacher while the other _O_ noted only the responses of the children. Thus the degree of contamination inherent in the method of observation we employed appears to be preferable to the loss of validity that results from attempts of _O_'s to rate the behavior of the teacher and her students without the use of the other as a referent.

In rating the children, care was exercised to rate the class as a whole and not to give inordinate weight to a small minority by concentrating on the behavior of a single child or a few children.

## Results

### Tests of Assumptions

Before analyzing the effects of teachers' overt behavior upnn students' performance, it was first necessary to test two basic assumptions: (1) that the 14 items of the teacher rating scale would yield the three factors of resourcefulness, dictatorialness and punitiveness, as they had in the earlier study (Harvey, _et al._, 1966); and (2) that variations in the concreteness-abstractness of the teachers' beliefs would lead them to score differently on these three behavioral factors.

The validity of the first assumption was demonstrated by the results of a factor analysis of the teacher rating scale by Tryon's method of cluster analysis (Tryon & Bailey, 1965; 1966) which yielded the three anticipated clusters.

Resourcefulness was comprised of four behavioral items. They, together with their factor leadings (represented by the values in the parentheses) were: utilization of physical resources (.77), diversity of simultaneous activities (.77), enccuragement of creativity (.72) and ingenuity in improvising teaching and play materials (.71).

Dictatorialness contained seven items; need for structure (.90), flexibility (-.90), rule orientation (.86), encouragement of free expression of feelings, (-.84), teacher determination of classroom procedures (.81) and the use of unexplained rules (.70).

Punitiveness was based on three items: warmth toward the children (-.86), perceptiveness of the children's needs and wishes (-.85) and punitiveness (.77).

The second assumption also proved to be warranted. Teachers classified on the basis of the TIB as being concrete were significantly less resourceful ($t=4.03$, $p<.001$), significantly more dictatorial ($t=1.67$, $p<.05$), and were more punitive, although not significantly more, ($t=1.05$, $p<.10$) than teachers classified as abstract. Moreover, the abstractness measure from the CST correlated significantly positively with teacher resourcefulness ($r=.37$, $p<.005$), and significantly negatively with both teacher dictatorialness ($r=-.19$, $p<.05$) and punitiveness ($r=-.19$, $p<.05$). These results, through replicating the more essential findings of our earlier study

(Harvey, et al., 1966), make it clear that variation in the concreteness-abstractness of teachers' beliefs generates theoretically consistent and predictable parallels in the overt behavior of these individuals. Thus an examination of the effects of teachers' beliefs and behavior upon their students, the major concern of this study, becomes appropriate.

### Concreteness-Abstractness of Teachers Beliefs and Student Performance.

Factor Analysis of the Student Rating Scale. In order to extricate the more generic dimensions encompassed within the 31-item student rating scale and thus enhance the coherency of the presentation of results, the student rating scale was factorized by Tryon's method of cluster analysis (Tryon & Bailey, 1965; 1966) and the resulting factors related to variation in teachers' beliefs and overt behavior.

Seven factors were derived from the student rating scale. The first cluster, termed cooperation, was comprised of five items, which with their factor loadings were: immediacy of response to rules (.91), overall adherence to teachers' rules (.86), child-sustained activity (.68), cooperativeness with teacher (.57), and adherence to the spirit of the rules (.55). The second factor, which centered around student involvement, consisted of eight items: enthusiasm (.89), voluntary participation in classroom activity (.82), free expression of feelings (.78), voice of students in classroom activity (.78), independence (.76), information seeking (.72), insecurity (-.66) and task attentiveness (.63). The third factor, labeled activity level, was derived from two items: amount of activity (.81) and diversity of goal-relevant activity (.81). The fourth factor, nurturance seeking, contained two items: guidance seeking (.68) and approval seeking (.59). The fifth factor, termed achievement level, included three items: accuracy of facts (.81), appropriateness of solution (.80) and integration of facts (.71). The sixth factor, helpfulness, was comprised of four items: consideratenss toward classmates (.79), cooperativeness with classmates (.71), taking turns (.56) and aggression (-.49). The seventh cluster, referred to as concreteness of response, contained three items: roteness of answers or solutions (.88), orientation toward specificity of facts (.71) and novelty of answer or solution (-.56).

Four of the items from the student rating scale were not included in any of the seven clusters: amount of interaction, reciprocal affection, passive and active hostility. Results relating to these four items will not be reported.

TIB Classification and Student Performance: Comparisons were made between the 64 classes taught by the 50 teachers classified by the TIB as being concrete and the 16 classes taught by the 12 teachers on each of the seven factors derived from the student rating scale.

As indicated in Table 1, students of more abstract teachers, in comparison to their counterparts, were significantly more involved in classroom activities,

Table 1 About Here

more active, higher in achievement and less concrete in their responses. They were also less nurturant seeking, more cooperative and more helpful, but not significantly more, than students of concrete teachers.

CST Factors and Student Performance. Teachers' scores on the abstractness measure from the CST and on each of the three factors going into this measure were correlated with each of the seven factors from the student rating scale. These relationships are presented in Table 2.

Table 2 About Here

The CST measure of abstractness related significantly to every one of the student performance factors. Greater abstractness of the teacher was accompanied by greater involvement, greater cooperation, more activity, less nurturance seeking, higher achievement, greater helpfulness and less concreteness on the part of the students.

While all three of the factors constituting the measure of teacher abstractness correlated in the predicted direction with performance of the children, the teachers' need for structure-order correlated the highest and most consistently. In fact, the teacher's need for structure-order had greater influence on the performance of the children than her belief in divine fate control, need for simplicity-consistency and overall abstractness.

Teachers' Overt Behavior and Student Performance. Teachers' scores on the behavioral factors of resourcefulness, dictatorialness and punitiveness were correlated with the seven student performance clusters, the results of which are included in Table 3.

Table 3 About Here

The resourcefulness of the teacher correlated significantly positively with student cooperation, involvement and activity and significantly negatively with the concreteness of students' responses.

The teachers' dictatorialness correlated significantly negatively with the students' cooperation, involvement, activity, achievement and helpfulness and significantly positively with students' concreteness of responses.

Teachers punitiveness correlated significanlty negatively with student cooperation, involvement, activity, achievement and helpfulness and significantly positively with the concreteness of the students responses.

Nurturance seeking was the only one of the seven student performance clusters that did not relate significantly to any one of the teacher behaviors.

## Discussion

By replicating the findings of our earlier study (Harvey, et al.,1966), these results make it clear that the concreteness-abstractness of teachers' belief systems affect their overt resourcefulness, dictatorialness and punitiveness in the classroom. In addition, the results of the present study allow the inference that not only does the abstractness of teachers' beliefs influence their own classroom behavior, it also affects the performance of the students themselves.

The obtained differences between concrete and abstract teachers probably would have been accentuated had the group of more abstract teachers been comprised only of clear instances of System 4. Instead unclear instances together with cases of System 3 were combined with clear instances of System 4 to constitute the abstract group in this study. Yet, if our experiences from the earlier (Harvey, et al., 1966) and the present study are typical, a large sample of teachers would be necessary to yield an adequate number of clear cases of System 4. Of the 292 teachers to whom we have administered the TIB, only 18, or six per cent, have been classified as System 4, not all of which were ideal cases. While strongly suggesting that in terms of absolute numbers few teachers operate at the System 4 level, it should be noted that this percentage is identical to the seven per cent of System 4 individuals we have found from among approximately 3000 undergraduates administered the TIB. In fact, this percentage appears to be so constant across a large sample of subjects that some special factor(s) may be necessary to account for it.

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## Table 1

## Comparison Between Performances of Students of Concrete and Abstract Teachers (as classified by the TIB)

| Student Rating Scale Factors | Concrete Teachers | | Abstract Teachers | | t |
|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | |
| Cooperation | 4.05 | 0.82 | 4.34 | 0.75 | 1.26 |
| Involvement | 3.60 | 0.87 | 4.09 | 0.90 | 1.96* |
| Activity | 3.29 | 1.01 | 4.22 | 1.02 | 3.29** |
| Nurturance seeking | 2.91 | 0.99 | 2.56 | 0.95 | -1.27 |
| Achievement | 3.90 | 0.71 | 4.25 | 0.56 | 1.81* |
| Helpfulness | 4.03 | 0.65 | 4.20 | 0.63 | 0.97 |
| Concreteness | 3.78 | 0.88 | 3.27 | 0.80 | -2.12* |

*t for p.05, 78 df, one-tailed test = 1.67

**t for p.01, 78 df, one-tailed test = 2.38

## Table 2

### Correlations Between Clusters from the Conceptual Systems Test and the Student Rating Scale

| Student Rating Scale Factors | Teacher Variables:CST Clusters | | | |
|---|---|---|---|---|
| | 1.Divine Fate Control | 2.Simplicity-Consistency | 3.Structure Order | 4.Abstractness ($\Sigma$ 1·2·3) |
| Cooperation | -.14 | -.21* | -.22* | .21* |
| Involvement | -.10 | -.18* | -.21* | .18* |
| Activity | -.12 | -.13 | -.34** | .19* |
| Nurturance Seeking | .14 | .12 | .24* | -.18* |
| Achievement | -.22* | -.21* | -.30** | .27** |
| Helpfulness | -.17 | -.17 | -.15 | .19* |
| Concreteness | .06 | .23* | .29** | -.19* |

i.e.= $\Sigma$ inverted sign!

* _r_ for _p_.05, 84 _df_, one-tailed test, =.18

** _r_ for _p_ .01, 84 _df_, one-tailed test, = 26

## Table 3

## Correlations of Teacher Dictatorialness, Punitiveness and Resourcefulness to Student Performance Factors

| Student Behavior | Teacher Behavior | | |
|---|---|---|---|
| | Resourcefulness | Dictatorialness | Punitiveness |
| Cooperativeness | .23** | -.18* | -.34** |
| Involvement | .69** | -.84** | -.73** |
| Activity | .76** | -.33** | -.29** |
| Nurturance Seeking | -.12 | -.05 | -.01 |
| Achievement | .28** | -.28** | -.32** |
| Helpfulness | .02 | -.23** | -.32** |
| Concreteness | -.60** | .67** | .56** |

* r for p .05, 116 df one-tailed test = .15

** r for p .01, 116 df one-tailed test = .22

OEO - 1274  
FINAL REPORT

July 28, 1967

# FAMILY SURVEY

This report is the result of the study of families whose children attended or were eligible to attend the first Head Start programs in Colorado carried out during the summer of 1965. Eighteen towns and cities were represented, each with somewhat different Head Start programs developed to meet local needs as viewed by the representatives of the community responsible for the programs.

The purpose of the study was twofold: to determine family attitudes and values of Head Start children; and to get family data which could be related subsequently to the children's responses to Head Start and the public school. A study of classroom environments created by Head Start teachers of different belief systems (Harvey, White, Prather, Alter and Hoffmeister, 1966) preceded the family interviews. A study of the children in their first year of public school was planned as a final effort to extricate interactive effects between family values and classroom atmospheres, and whether Head Start experience contributed to the interactions.

Of the many family values and attitudes that could be expected to relate to children's performance in Head Start and public school, those considered most relevant were: the family's view of its place in the social system and relationship to it; the hopes and aspirations of of the parents for themselves and for their children; the perceived possibility of attaining these goals; the degree of satisfaction with attained status; and the view of self as a causal agent in effecting desired outcomes.

PS 000276

In order to extricate these family attitudes and apply the findings to analysis of the effects on children's reactions to teachers and classroom environments, a Social Motivation-Aspiration questionnaire was constructed covering the following areas:

1. Socioeconomic information: income, source of income, type of job, level of education, number of children in the family.
2. Sociometric data: voting habits, father presence/absence, number of close friends, frequency of church attendance, frequency of contact with relatives and friends, and closeness of both immediate and extended family.
3. Degree of satisfaction with, aspiration for, and expectations for both parents and children with respect to income, education, type of job, number of children, political influence, relations within family and with extended family, relations with neighbors, and religious activity.
4. The extent of family disenchantment with and rejection of some of the traditional values of Western culture, described subsequently as "General Pessimism".

To ascertain attitudes of parents toward Head Start and determine recruiting procedures, the following information was also obtained.

a. Whether parents were invited to send their children and did so, for the whole session.

b. Whether parents were invited and accepted; but did not send their children, or else discontinued after a short period of time.

c. Whether parents were not contacted, but did enroll their children.

d. Whether parents were not contacted, knew nothing of the program and said that they would have sent their children had they known about it or had been invited to send them.

e. Whether parents who were not contacted would have refused if they had been invited to send their children.

## Interviewers

Two main considerations affected the selection of interviewers for this survey. One was that families of children eligible for most Head Start programs might have negative feelings toward persons like social workers and other institutional representatives they deal with; but would be more responsive to people more nearly like themselves. The other concern was consonant with the aims of the Office of Economic Opportunity: to engage members of the poverty community in work related to the War on Poverty.

People likely to be capable of meeting the requirements for the particular task involved were available from a leadership training class conducted in the spring of 1965 at the University of Denver. 32 members of that class had participated in the University of Colorado Head Start Teacher Training Program in June, 1965. They were hired then as guides to poverty areas in Denver and had evidenced high motivation, trainability, and ability to follow instructions responsibly and effectively.

Criteria for selection of the interviewers were based on the following needs:

1. Ability to speak Spanish.

2. Availability for 8 to 10 weeks of work.
3. Availability for travel to other parts of the state.

Out of eighteen applicants, seven were selected, meeting necessary requirements.

The week of training for the interviewers commenced on July 29, 1965. Actual interviewing commenced immediately following the summer Head Start program. Training concentrated on the following:

1. Explanation of the questionnaire and its purpose in relation to the interaction study of which it was a part.

2. Discussion of specific wording of the questions; both for clarification for the interviewers, and for suggestions as to appropriate wording in the language used by the respondents.

3. Practice interviewing in the class on class members and in their own neighborhoods, followed by discussions of techniques and problems encountered. (This followed demonstration taped interviews prepared by the instructors.

4. Private, practice (taped) interviews with subject respondents, followed by critiques by the class members and instructors.

5. General discussions of interviewing techniques which included the need for detachment or neutrality, confidentiality of the material, and problems anticipated in approaching the desired respondents.

6. Preparing, discussing and rehearsing rationale for the interviews.

During the period between August 5 and October 15, 1965, 724 families were interviewed. 409 represented families whose children had attended the complete Head Start session; 22 had children who started and then dropped out of the program; 293 were non-Head Start families with eligible children. 707 remained in the final analysis after deleting those on whom there was insufficient data.

All Head Start Centers represented in the training program for teachers provided class rosters. Some were able to provide an additional list of families who had agreed to participate in the program, but whose children did not attend. Other centers were unable to do so because all invited agreed to have their children attend and they did so. (Most frequently these were in communities where either welfare agencies or Public Health Nurses had previously screened the list of eligible families). Others kept no records of contacts and simply continued recruiting until all class rosters were filled.

In Denver, census tracts were used as a basis for recruiting. They represented tracts with the:

Highest density of population;
Highest number of Spanish surnamed people;
Lowest median income;
Highest concentrations of non-white population;
Largest numbers of general welfare and ADC recipients;
Highest concentrations of unemployed males.

Only one community, Commerce City, accepted children without establishing the financial qualifications usually required for eligibility for the program, roughly $1000 per adult and $500 per child annual income. They had a special project which permitted omission of financial restrictions.

Efforts to match non-Head Start families for interviewing were limited according to the various procedures used in recruiting. Since the majority of interviews of Head Start families were scheduled for areas, both rural and urban, where there was a concentration of families of similar demographic nature and where recruiting was done; non-Head Start families were located in the same place. Interviewers began with a residence adjacent to a Head Start family and continued down the street or road until a non-Head Start family with an eligible child was located for interviewing. Funding limited enrollment in Head Start Centers, leaving a sufficient number of eligible children for acceptable matching of families on most variables.

## Geographic areas

18 different Colorado communities were represented in the families interviewed. Denver and 4 suburbs comprised one area. Colorado Springs was the only other large city. Two cities and two towns north of Denver were included; three mountain towns; and 5 southern Colorado communities ranging in size from 1,000 to 5,000 population constituted the remaining locations.

## ANALYSIS OF THE INTERVIEW SCHEDULE

The total questionnaire included 3 items on Head Start status, 45 items from a Bureau of Census inventory and 121 items designed to measure family status on income, occupation and education; social contacts within and without the family, religious activity and anomie. Aspirations and expectations were also measured (See Appendix A)

The general approach to the data has been (a) to divide the total inventory into two general sets of items: those scored as discontinuous categories, and those scored in terms of what are assumed to be continuous categories; (b) to select for further analysis only those items from these two sets which appeared most likely to maximize differences between subjects (Fiske, 1963); and (c) to further subdivide these remaining continuously scored items into subsets which were thought to be measures to single domains, such as anomie.

Chi-squares were done between all possible pairs of discontinuous items and cluster analyses (Tryon & Bailey, 1965; Tryon & Bailey, 1966) were done on the several sets of continuous items. In addition, all relevant items were converted to hope-expectancy scores; e.g., a family indicating low* hope and low expectancy with respect to a particular domain, such as family income, were coded as "1", those with low hope and high expectancy as "2", high hope and low expectancy as "3", and high hope and high expectancy as "4".

*low and high were based on scores below or above the median for that item.

## DESCRIPTION OF THE SAMPLE

The children of 55.31% of the 707 families interviewed had attended the summer Head Start session; 43% were recruited, the remaining were enrolled without invitation on the initiative of the parents. 15.42% were invited but did not send their children; 6.5% were not invited and said they would not have sent their children in any case.

692 (97.88%) of the respondents were the mothers of the family. 77.51% of the respondents were married. The fathers of 21.92% of the families did not live at home. No one was employed in 158 or 22.35% of the families, and 191 (27.02%) were receiving public assistance. In the 73.41% of the families where someone was employed, 483 or 68.32% were the fathers; 26 or 3.68% were mothers; and 8 or 1.3% were children.

670 (94.77%) of the families owned TV sets. 493 (69.73%) were registered to vote.

Because of the one large program which had no limiting income requirements for participation in the Head Start program, a larger number of respondents owned their own homes than was expected. 267 or 37.77% were in this category. 77 or 10.89% lived in public housing; 65 or 9.19% of the families lived in a private apartment building; and 242 or 34.23% rented a house. 121 or 24.61% had 4 or fewer people living in their residence; 106 or 14.99% had 9 or more in their home.

More than half the sample (54.17%) had Spanish surnames, and in 49.5% of the families, Spanish was the second language spoken in the home. 429 or 60.68% of the respondents were Catholic; 188 or 26.59% were Protestants; 36 or 5.09% belonged to an Evangelical church; 21 or 2.97% belonged to some "other" church. 24 or 3.39% did not belong to any church.

Of the 483 families where the husband was employed, 260 or 39.78% worked as unskilled laborers (coded 1); 171 or 24.19% as skilled laborers (coded 2); 88 or 12.45% had "white collar" jobs (coded 3); and, 11 or 1.56% had jobs classified as "professional" (coded 4). The median for occupations was 1.529. Median occupation was below the skilled labor level.

Educational achievement was coded 1 for "less than 6th grade"; 2 for "some high school", 3 for "finished high school", and 4 for "some college". 78 or 11.03% of the mothers and 74 or 10.61% of the fathers had less than 6 grades of school. 430 or 60.82% of the mothers and 357 or 50.50% of the fathers finished high school. 40 or 5.66% of the mothers and 52 or 7.36% of the fathers had some college education. The median for mothers and fathers was 2.117 and 2.178 or "some high school".

Median family income was $65.20 per week. (Slightly more than 10% of the families had incomes over $120 per week.) Median general income for the past 5 years was $63.96 per week. In response to the question, "How much would you like for your family income to be?", the median weekly income desired was $97.88. Median expectation for lowest and highest family income expected in the future were $47.58 and $90.54 per week respectively.

Economic aspirations for the child in, or eligible for Head Start were ascertained by asking what was the highest income expected; the lowest income; the income desired for the child by age 30; and the income the child would be expected to be earning between 30 and 50 years of age. Highest median weekly income expected was $111.12; lowest was $55.16. Median weekly income desired for the child to be earning by age 30 was $99.74. The median weekly earning expected generally in adulthood was $111.82. In response to these questions about the child's economic future, 20 to 31% of the respondents did not give any estimates.

Family religious practices were ascertained by asking, "How often do you, (your child), (your husband) go to church?" Responses were coded: 1 = never; 2 = occasional Sundays or special events; 3 = every Sunday; 4 = twice or more each week. Medians were: for the respondent, 2.384; for the child 2.708; for the husband, 2.152.

Included with questions on religious practices were those regarding satisfaction with amount of church attendance. It was coded: 1 = very dissatisfied; 2 = somewhat dissatisfied; 3 = somewhat satisfied; 4 = very satisfied. Median responses were: for the respondent, 3.196; for the child, 3.638; for the husband, 2.965.

Religious attitude was ascertained by the questions: (1) How close do you feel you are to God? (coded 1 = very far: 2 = somewhat far; 3 = somewhat close; 4 = very close); (2) How happy are you with your closeness to God? (coded 1 = very unhappy; 2 = somewhat unhappy; 3 = somewhat happy; 4 = very happy); and (3) On the whole I am a religious person. (coded 1 = agree a lot; 2 = agree a little; 3 = disagree a little; 4 = disagree a lot). Median responses were in order (1) 3.503 (feel close); (2) 3.638 (happy about it) and (3) 1.380 (am religious).

Family relationships and practices were measured with items such as, "How often do you visit, phone or write your brother(s) and/or sister(s) and how often do they visit, phone or write you?" were coded: 1 = never; 2 = not very often; 3 = pretty often; 4 = very often. Median responses for these 2 items were 2.949 and 2.933 respectively, or pretty often. The question, "How close are you to your brother(s) and/or sister(s)?" was coded: 1 = very distant; 2 = somewhat distant; 3 = somewhat close; 4 = very close. Median response was 3.724, quite close.

"How often do friends or neighbors contact you; how often do you contact friends and neighbors; and, how many close friends do you have in this neighborhood?" were coded: 1 = never; 2 = not very often; 3 = pretty often; 4 = real often. Medians for responses to these two questions were 2.734 and 2.430 respectively. The responses to the number of close friends in the neighborhood was scored 1 for "none," 2 for "not very many," 3 for "quite a few," and 4 for "many." Median response was 2.250.

Educational achievement, aspiration and expectation items were coded; 1 = less than 6th grade; 2 = some high school; 3 = finished high school; 4 = some college or finished. To "How far in school do you wish your husband had gone?" the median response was 3.551, for "How far in school did your husband go?" the median was 2.178, for "How far in school do you hope your child will get?", it is 3.709; and for "How far in school do you expect your child will go?", it was 3.350.

Items designed to tap anomie, or general pessimism, as described in the introduction were scored: 1 = disagree a lot; 2 = disagree a little; 3 = agree a little; 4 = agree a lot. They and their medians are listed in table below.

| Item | Median |
|---|---|
| Politicians have to bribe people. | 1.791 |
| Most people in public office aren't really interested in the problems of the poor man. | 2.150 |
| Judges can be "fixed" for the right price. | 1.505 |
| In spite of what some people say, the poor man's condition is getting worse. | 1.842 |
| This world is run by a few people in power and there isn't much the poor man can do about it. | 1.931 |
| You sometimes can't help wondering whether anything's worthwhile anymore. | 2.081 |
| It's hardly fair to bring a child into the world the way things look. | 1.958 |
| To be successful, a businessman has to be crooked. | 1.165 |
| Most people don't really care what happens to the other fellow. | 2.728 |

| Item | Median |
|---|---|
| These days a person doesn't really know whom he can count on. | 2.981 |
| Planning only makes a person unhappy, since plans hardly ever work out. | 2.401 |
| Government officials are interested in pleasing people with money and social position. | 1.608 |
| Who you know is more important than what you know to get a good job. | 1.680 |
| Poor people who have risen to positions of wealth and power were either crooked or had the help of a wealthy person. | 1.352 |
| The poor man has little or no control over what happens to him in life. | 1.652 |

## RESULTS

Eight factors were generated which accounted for 54% of the initial communality and 82% of the mean square of the raw correlation matrix.

These factors were labeled Family Economic Status-Outlook (FESO), Children's Economic future (CEF), Family Religious Status (FRS), Closeness to God (CG), Mother's Family Contact (MFC), Family Contact with Neighbors and Friends (FCN), Educational Aspirations (EA), and General Pessimism (GP). The items making up these clusters and their respective factor loadings are displayed in Table I

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Table 1 About Here

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In addition, since the chi-squares for all possible pairs of four items assessing the kind of work of the father were significant ($p<.01$), and since the tendency was to choose "unskilled' for all items, if for any, these items were combined to provide a factor score labeled Job-Outlook-Status (JOS). JOS and the eight factors discussed previously provided the dependent variables used in subsequent analyses.

Sixteen independent variables were used in the final analyses. They were: Does father live at home (FHM), yes = 1, no = 2; Is anyone employed (EMPL), yes = 1, no = 2, Does family receive public assistance (ASST), yes = 1, no = 2; Ethnic status (ETH), Spanish = 1, Caucasian = 2; Head Start Status (HS), attended = 1, did not attend = 2; Marital status (MAR), married = 1, divorced or other = 2; Is the home bilingual (BIL), yes = 1, no = 2; Religious status (REL), Protestant = 1, Catholic = 2; Hope-Expectancy, Family Income (HEFI);* Hope-Expectancy, Child Income (HECI); Hope-Expectancy, Mother-kind of work (HEMW); Hope-Expectancy, Husband-kind of work (HEHW); Hope-Expectancy, Child-kind of job (HECW); Hope-Expectancy, self political influence (HEMP), Hope-Expectancy, Poor-political influences (HEPP); Hope-Expectancy, Child Education (HECE).

The initial approach to the data was to use "t" tests. So many of the independent variables were significant for the same dependent variables that it became difficult to decide which of the former were more important. A stepwise multiple regression procedure (Efroymson, 1962; Draper and Smith, 1966) was selected to overcome this problem.

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*see page 9, for discussion of coding.

The correlation matrix for these independent (predictor) and dependent (criterion) variables as displayed in table 2.

Table 2 About Here

Various subsets* of the 16 predictor or independent variables were used in the regression analyses. Four criterion variables yielded multiple R's both significant ($p \leq .01$) and large enough ($\underline{R} > .30$) to warrant further consideration. These were Family Economic Status (FESO), Child's Economic Future (CEF), Educational Aspiration (EA), and Job-Outlook-Status (JOS).

Five predictor (independent) variables produced a multiple R of .55 and accounted for 30% of the variance on FESO. The analysis of variance is summarized in table 3.

Table 3 About Here

The data suggest that (a) Non-Spanish families having the characteristics (b) married, (c) high hope and high expectancy regarding the childrens' income, (c) someone employed, (d) high hope and high expectancy with respect to the father's kind of job will be highest with respect to family economic status. The regression coefficients* were Marital status (-.28); Hope-Expectancy, Child Income (.20); Anyone employed (-.19); Ethnic Status (.17), and Hope-Expectancy, Father's kind of job (.13).

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*FESO and JOS were at times also used as independent variables, e.g., when predicting to CEF, and EA.

Three variables yielded a multiple R of .41 and accounted for 17% of the variance on CEF. Table 4 displays the analyses of variance.

Table 4 About Here

The data indicate that families who are (a) higher on Family Economic Status, and who have high hope and high expectancy regarding (b) the child's education and (c) the child's kind of job will tend to be higher on Child's Economic Future. The regression coefficients were:a FESO (.26); Hope-Expectancy, Child's Education (.18); and Hope-Expectancy, Child's kind of job (.14).

Four variables produced a multiple R of .50 and accounted for 25% of the variance of EA. Table 5 displays the analyses of variance.

Table 5 About Here

The data suggest that (a) Non-Spanish families who (b) are higher on Job-Outlook-Status, (c) are married, and (d) have high hope and high expectancy regarding the mother's kind of job will have higher educational aspirations than their counterparts. The regression coefficients were: JOS (.38); Ethnic Status (.26); Marital Status (.17); and Hope-Expectancy-Mother's kind of job (.16).

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*these regression coefficients and those listed subsequently were based on predictions to standardized scores.

Three variables produced a multiple R of .63 and accounted for 39% of the variance of Job-Outlook-Status. The analyses of variance is displayed in table 6.

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Table 6 About Here

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These data indicate that (a) married families who have high hope and high expectancy with respect to (b) the children's education, and (c) family income will tend to be highest on Job-Outlook-Status. The regression coefficients were: Marital status (-.50); Hope-Expectancy, child education (.20); and Hope-Expectancy, family income (.16).

## TABLE 1

| No. | Family Clusters | Obl.Fact.Coef. |
|---|---|---|
| I. | Family Economic Status-Outlook (FESO) | |
| | What is the highest family income you ever expect to have per month? | .88 |
| | How much is your present family income per month? | .82 |
| | How much would you like for your family income to be per month? | .76 |
| | What is the lowest income you ever expect to have per month? | .71 |
| | How much has your family income generally been for the past five years? | .70 |
| II | Child's Economic Future (CEF) | |
| | What is the highest income you expect him/her to have per month? | .89 |
| | What income would you like for (child) to be making by age 30? | .84 |
| | What income do you expect him/her to be generally from age 30 to 50? | .79 |
| | What is the lowest income you expect him/her to have per month? | .67 |
| III | Family Religious Status (FRS) | |
| | How often do you go to church? | .85 |
| | How often do your children go to church? | .83 |
| | How often do you attend religious services? | .83 |
| | How often does your husband go to church? | .71 |
| | How often does your child attend church, Sunday school, or religious services? | .70 |
| | How often does your husband attend religious services? | .70 |
| | How satisfied are you with the number of times your children go to church? | .61 |
| | How satisfied are you with the number of times you go to church? | .61 |
| | How satisfied are you with the number of times your husband goes to church? | .47 |
| IV | Closeness to God (CG) | |
| | How close do you feel you are to God? | .87 |
| | How happy are you with your closeness to God? | .87 |
| | On the whole, I am a religious person. | .50 |

### V Mother's Family Contact (MFC)

| | |
|---|---|
| How often do you visit, phone, or write brothers and/or sisters? | .85 |
| How often do they visit, phone, or write you? | .85 |
| How close are (were) you to your brother(s) and/or sister(s)? | .52 |

### VI Family Contact With Neighbors and Friends (FCN)

| | |
|---|---|
| How often do your friends or neighbors phone or come to see you? | .77 |
| How often do you telephone or go to see your neighbors or friends? | .71 |
| How many close friends do you have in this neighborhood? | .57 |

### VII Educational Aspirations (EA)

| | |
|---|---|
| How far in school do you wish your husband had gone? | .78 |
| How far in school did your husband go? | .78 |
| How far in school do you hope (child) will get? | .67 |
| How far in school do you expect (child) will get? | .61 |
| How far in school did you go? | .52 |
| How far in school do you wish you had gone? | .43 |

### VIII General Pessimism (GP)

| | |
|---|---|
| Politicians have to bribe people. | .74 |
| Most people in public office aren't really interested in the problems of the poor man. | .64 |
| Judges can be "fixed" for the right price. | .64 |
| In spite of what some people say, the poor man's condition is getting worse. | .62 |
| This world is run by a few people in power and there isn't much the poor man can do about it. | .62 |
| You sometimes can't help wondering whether anything's worthwhile anymore. | .60 |
| It's hardly fair to bring a child into the world the way things look. | .58 |
| To be successful a businessman has to be crooked. | .57 |
| Most people don't really care what happens to the other fellow. | .52 |
| These days a person doesn't really know whom he can count on. | .48 |
| Planning only makes a person unhappy, since plans hardly ever work out. | .48 |

### General Pessimism (con't)

| | |
|---|---|
| Government officials are interested in only pleasing people with money and social position. | .47 |
| Who you know is more important than what you know to get a good job. | .46 |
| Poor people who have risen to positions of wealth and power were either crooked or had the help of a wealthy person. | .46 |
| The poor man has little or no control over what happens to him in life. | .45 |

## Raw R Matrix for Family Variables

| | FAM | EMPL | ASST | ETH | HS | MAR | BIL | REL | FESO | CEF | FPR | CG | MFC | FCN | EA | GP | JOS | HEFI | HECI | HEMW | HEHW | HECW | HEMP | HEPP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMPL | .61 | | | | | | | | | | | | | | | | | | | | | | | |
| ASST | -.60 | -.63 | | | | | | | | | | | | | | | | | | | | | | |
| ETH | .08 | -.03 | .02 | | | | | | | | | | | | | | | | | | | | | |
| HS | -.09 | -.07 | .11 | .00 | | | | | | | | | | | | | | | | | | | | |
| MAR | .90 | .58 | -.58 | .08 | -.10 | | | | | | | | | | | | | | | | | | | |
| BIL | .13 | .06 | -.04 | .64 | -.04 | .14 | | | | | | | | | | | | | | | | | | |
| REL | -.04 | .00 | -.02 | -.47 | -.03 | -.02 | -.46 | | | | | | | | | | | | | | | | | |
| FESO | -.38 | -.38 | .37 | .19 | .13 | -.40 | .10 | -.11 | | | | | | | | | | | | | | | | |
| CEF | -.10 | -.10 | .14 | .12 | -.03 | -.12 | .09 | -.11 | .33 | | | | | | | | | | | | | | | |
| FPR | -.07 | -.10 | .02 | -.11 | .08 | -.10 | -.20 | .09 | .00 | -.02 | | | | | | | | | | | | | | |
| CG | -.13 | -.10 | .07 | -.08 | .10 | -.14 | -.13 | .08 | .02 | .00 | .42 | | | | | | | | | | | | | |
| MFC | -.05 | -.06 | .05 | -.04 | .05 | -.06 | -.03 | -.04 | .05 | .06 | .13 | .10 | | | | | | | | | | | | |
| FCN | -.07 | -.10 | .08 | .19 | .00 | -.09 | .17 | -.16 | .16 | .08 | .05 | .08 | .19 | | | | | | | | | | | |
| EA | -.01 | -.14 | .11 | .33 | .01 | -.02 | .21 | -.18 | .28 | .25 | .01 | .01 | .06 | .13 | | | | | | | | | | |
| GP | .05 | .08 | -.06 | -.13 | .00 | .05 | -.12 | .03 | -.16 | -.12 | .01 | -.05 | -.12 | -.11 | -.28 | | | | | | | | | |
| JOS | -.53 | -.42 | .44 | .12 | .13 | -.57 | .01 | -.01 | 149 | .17 | .11 | .11 | .04 | .13 | .34 | -.17 | | | | | | | | |
| HEFI | -.28 | -.24 | .25 | .13 | .09 | -.30 | .07 | -.08 | .70 | .30 | .02 | .04 | .08 | .11 | .19 | -.12 | .34 | | | | | | | |
| HECI | -.08 | -.10 | .12 | .11 | .00 | -.10 | .08 | -.12 | .28 | .78 | -.04 | -.04 | .04 | .06 | .18 | -.08 | .13 | .28 | | | | | | |
| HEMW | -.01 | -.06 | .06 | .07 | -.03 | .00 | .06 | -.02 | .15 | .14 | -.01 | -.04 | .01 | .07 | .24 | -.15 | .14 | .14 | .09 | | | | | |
| HEHW | -.03 | -.05 | .07 | .11 | -.01 | -.04 | .07 | -.07 | 19 | 11 | 05 | 03 | .04 | .06 | .25 | -.14 | .34 | .16 | .07 | 114 | | | | |
| HECW | -.03 | -.07 | .05 | .13 | -.03 | -.02 | .12 | -.12 | .14 | .22 | .04 | .04 | .05 | .09 | .18 | .10 | .11 | .14 | .18 | .08 | .12 | | | |
| HEMP | -.01 | .00 | .00 | .00 | .01 | -.02 | -.01 | -.01 | .01 | .04 | .08 | .18 | .05 | .02 | .06 | .03 | .02 | -.01 | -.01 | -.01 | .04 | .03 | | |
| HEPP | -.01 | .00 | .00 | .00 | .01 | -.02 | -.01 | -.01 | .01 | .04 | .08 | .18 | .05 | .02 | .06 | .03 | .02 | -.01 | -.01 | -.01 | .04 | .03 | 1.00 | |
| HECE | -.09 | -.14 | .14 | .22 | -.04 | -.08 | .14 | -.11 | .29 | .27 | .02 | .01 | .06 | .13 | .65 | -.16 | .26 | .14 | .22 | .16 | .17 | .19 | .08 | .08 |

## TABLE 3

## SUMMARY OF ANALYSIS OF VARIANCE FOR FESO

| SOURCE | SS | DF | MS | F |
|---|---|---|---|---|
| Regression | 211.07 | 5 | 42.20 | 59.76 |
| Residual | 494.99 | 701 | .71 | |

$F_{5/200} = 3.11$, $p = .01$

## TABLE 4

## SUMMARY OF ANALYSIS OF VARIANCE ON CEF

| SOURCE | SS | DF | MS | F |
|---|---|---|---|---|
| Regression | 118.83 | 3 | 39.61 | 47.42 |
| Residual | 587.17 | 703 | .84 | |

$F_{3/200} = 3.88$, $p = .01$

## TABLE 5

## SUMMARY OF ANALYSIS OF VARIANCE FOR EA

| SOURCE | SS | DF | MS | F |
|---|---|---|---|---|
| Regression | 174.22 | 4 | 43.56 | 57.50 |
| Residual | 531.78 | 702 | .76 | |

$F_{[illegible]/200} = 3.11$, $p = .01$

## TABLE 6

## SUMMARY OF ANALYSIS OF VARIANCE ON JOS

| SOURCE | SS | DF | MS | F |
|---|---|---|---|---|
| Regression | 277.84 | 3 | 92.61 | 152.06 |
| Residual | 428.16 | 703 | .61 | |

$F_{3/200} = 3.88$, $p = .01$

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# APPENDIX A QUESTIONNAIRE

## GENERAL INFORMATION

________________
Present Date

Person Interviewed:________________________________ Age:_________
Address:_________________________________________

### HEAD START PARENTS

1. From whom did you hear about HEAD START?
2. Did you get a personal invitation or request for your child to go?
3. Why did you let your child go to HEAD START?

### NON-HEAD START PARENTS

1. Did anyone come around to tell you about HEAD START?
2. Why didn't you let (child) go?
3. If you had been asked to send (child) to HEAD START, would you have sent him/her?

## SOCIAL HISTORY/SOCIAL EXPERIENCE INVENTORY

4. Married Divorced Separated Widowed
5. Relationship of person interviewed:
6. Family Chart: Father, Mother, Children
   (age, live at home, highest grade completed)
7. Has (child) ever attended a:
   a. Day Care Center b. Summer Camp c. Settlement House Program
   d. Sunday School e. Other
8. Does family live in:
   a. Public Housing project apartment b. Private apartment building c. Rented house d. Own Private house e. Other
9. How long have you lived in this residence?
10. Where did you live before?
11. How many rooms do you have?
12. Total number of people living in your apartment or house:
13. Is anyone in your family employed?
14. If yes, who is working:
15. Who usually takes care of children in the home during the day?
16. Does family receive public assistance?
17. Does family receive supplementary assistance?
18. If yes, how long have you been receiving assistance?
19. What languages, other than English, are spoken at home?
20. By whom are they spoken?
21. How often do you attend club or organization meetings? (including church organizations, fraternal clubs, unions, political organizations, etc.)

22. How often does your husband attend club or organization meetings? (including church organizations, fraternal clubs, unions, political organizations, etc.)
23. Do you have a:
a. Radio b. T.V. c. Phonograph d. Tape Recorder
24. On the average how many hours a day do you listen to:
a. Radio b. T.V. c. Phonograph d. Tape Recorder
25. On the average how many hours a day does your husband listen to:
a. Radio b. T.V. c. Phonograph d. Tape Recorder
26. On the average how many hours a day does your child listen to:
a. Radio b. T.V. c. Phonograph d. Tape Recorder
27. How often do you go to the movies?
28. How often does your husband go to the movies?
29. How often does your child go to the movies?
30. How frequently do you read the newspapers?
31. How frequently does your husband read the newspapers?
32. How frequently do you do the following:
a. Attend sporting event b. Participate in sporting event c. Read a book or magazine d. Go to visit friends or relatives e. Entertain friends or relatives at home f. Eat in restaurants g. Attend concerts, plays, or exhibitions h. Go to picnics, outings, swimming i. Informal neighborhood group contacts (meeting with friends on the street, town square, etc.)
33. How often does your husband do the following:
a. Attend sporting event b. Participate in sporting event c. Read a book or magazine d. Go to visit friends or relatives e. Entertain friends or relatives at home f. Eat in restaurants g. Attend concerts, plays, or exhibitions h. Go to picnics, outings, swimming i. Informal neighborhood group contacts (meeting with friends on the street, town square, etc.)
34. Do you usually vote in elections:
a. City b. County c. State d. National
35. Does your husband vote in elections:
a. City b. County c. State d. National
36. How many times have you moved to a new town or city in the last two years?
37. How many times have you moved within the same town or city in the last two years?
38. How many trips of over 50 miles, aside from changing residence have you taken within the last two years for:
a. recreation or personal reasons b. business purposes
39. How many trips of over 50 miles, aside from changing residence, has your husband taken within the last two years for:
a. recreation or personal reasons b. business purposes
40. Have you ever traveled any distance (more than 50 miles) by:
a. car b. bus c. train d. plane e. passenger boat
41. Do you have any of the following hobbies?
a. Collecting stamps, coins, etc. b. gardening c. painting d. sewing e. photography f. playing musical instrument g. other (please specify)

42. Does your husband have any of the following hobbies?
a. collecting coins, stamps, etc. b. gardening c. painting d. carpentry e. photography f. automotive, electronic, or mechanical work g. playing musical instrument h. fishing or hunting i. other (please specify)

43. How many times in the past year has your child gone to a:
a. library b. small grocery store, butcher shop or produce stand c. supermarket d. post office e. playground f. zoo g. museum, art gallery, or exhibition h. airport i. railroad station j. Fire Station k. bank l. department store m. athletic event n. eaten in a restaurant o. parade p. circus or fair q. park r. beach, lake or pool s. car rides t. gas station

45. Does your child have, or has he had any of the following types of pets?
a. dog b. cat c. bird d pet fish e. turtle f. hamster g. other (please specify)

46. How many of the following are in the home?
a. toys or games b. books or children's magazines c. childrens phonograph records d. crayons, papers, paints, etc.

47. Does your child have his own:
a. radio b. phonograph

48. Your child shares his bedroom with how many other persons?
a. children b. adults

## SOCIAL MOTIVATION-ASPIRATION SCALE

### INCOME

49. How much is your present family income per week?
50. How much has your family income generally been for the past five years?
51. How much would you like for your family income to be per week?
52. What is the highest family income you expect to ever have per week?
53. What is the lowest income you expect to ever have per week?
54. How pleased are you with your present income?
a. very pleased b. somewhat pleased c. somewhat displeased d. very displeased
55. What income would you like for (child) to be making by the time he/she is 30? (per week)
56. What is the highest income you expect him/her to have? (per week)
57. What is the lowest income you expect him/her to ever have? (per week)
58. What income do you expect him/her to generally have from the time he/she is 30 to 50 years old? (per week)

### FRIENDS

59. How many close friends (other than your immediate family and close relatives) do you have? (All friends wherever they live.)
60. How satisfied are you with the number of friends you have?
61. How many close friends do you have in this neighborhood?

62. How many close friends (other than family and relatives) do your children have in this neighborhood?
63. How satisfied are you with the number of friends your children have?
64. How often do you telephone or go to see your neighbors or friends?
65. How often do your friends or neighbors phone or come to see you?
66. How happy are you with the number of visits and phone calls your friends and neighbors make to you?

## WORK-OCCUPATION

67. Do you presently work outside of the home?
68. If so, at what do you work?
69. If you have worked outside of the home, what kind of job have you generally worked at?
70. What kind of job would you most like to have if you could choose?
71. What kind of job would you most dislike having?
72. What is the best job you expect to ever have?
73. What is the worst job you expect to ever have?
74. How satisfied are you with your present job?
75. (If she has husband) What kind of job does your husband now have?
76. What kind of job has your husband generally worked at in the past.?
77. What kind of job would you most like for your husband to have if you could choose?
78. What kind of job would you most dislike your husband to have?
79. What is the best job you expect your husband to ever have?
80. What is the worst job you expect your husband to ever have?
81. How satisfied are you with your husband's present job?
82. How much of the time do you expect your husband to be out of work in the future?
83. What kind of job would you like for (child) to get when he-she grows up and starts to work?
84. What is the best job you expect he/she will ever hold?
85. What is the worst job you expect he/she will ever hold?
86. What kind of job do you expect he/she will hold most of his-her adult life?
87. How much of the time do you expecthim/her to be out of work during his/her adult life?

## IMMEDIATE FAMILY

88. How many children do you have?
89. How many of your children live here with you?
90. If some children live elsewhere, where do they live?
91. How satisfied are you with the number of children you have had?

92. How close is your family?
93. How happy is your family at present?
94. How satisfied do you think your children are with you as a mother?

## CLOSE RELATIVES

95. How many brothers have you? How many sisters?
96. Is your mother still living?
97. Is your father still living?
98. If not living with you, where does your mother live?
99. If not living with you, where does your father live?
100. How often do you visit, phone or write to your brother(s) and/or sister(s)?
101. How often do your brother(s) and/or sister(s) visit, phone or write to you?
102. (To be asked if parent(s) do not live with respondent): How often do you visit, phone or write to your parents (if they live together)?
103. How often do you visit, phone, or write to your father?
104. How close are (were, if deceased) you to your mother?
105. How close are (were, if deceased) you to your brother(s) and/or sister(s)?
106. How close are (were) you to your father?
107. How happy are you about your closeness to your brother(s) and/or sister(s)?
108. How happy are you about your closeness to your mother?
109. How happy are you about your closeness to your father?

## CHURCH AFFILIATION

110. What church, if any, do you belong to?
111. How often to you go to church?
112. How often do your children go to church?
113. How often does your husband go to church?
114. How often do you feel you should go to church?
115. How often do you feel your husband should go to church?
116. How often do you feel your children should go to church?
117. How satisfied are you with the number of times you go to church?
118. How satisfied are you with the number of times your husband goes to church?
119. How satisfied are you with the number of times your children go to church?
120. How close do you feel you are to God?
121. How happy are you with your closeness to God?

## GOVERNMENT

122. How much say do you feel you could have in what the local government officials do if you really wanted to and tried?

123. How much say would you like to have in what local government officials do?
124. How satisfied are you with the influence you feel you could have on government officials?
125. How much say do you feel poor people could have in what local government officials do if they wanted to and tried?
126. How much influence would you like for the poor people to be able to have on local government officials?
127. How satisfied are you with the influence poor people can have on local government officials?

## EDUCATION

128. How far in school did you go?
129. How far in school did your husband go?
130. How far in school do you wish you had gone?
131. How far in school do you wish your husband had gone?
132. How satisfied are you with the amount of schooling you have had?
133. How satisfied are you with the amount of schooling your husband has had?
134. How far in school do you hope (child) will get?
135. How far in school do you expect (child) will get?

## ANOMIE

136. On the whole, I am a religious person.
137. There is no use in a poor man voting because his vote doesn't count anyway.
138. The poor man has little or no control over what happens to his life.
139. Government officials are interested only in pleasing people who have money and social position.
140. The poor man has as much control as anyone else over what happens to him in life.
141. Government officials are as interested in serving the poor people as the better-off people.
142. If you are born into a poor family, there is no chance of moving out of the poor and working class.
143. Poor kids aren't treated as fairly by school teachers as the other kids are.
144. Even if you are born into a poor family, there are many honest and fair ways you can improve your position in life if you will only take advantage of them.
145. If you have a good enough education you can get ahead whether you were born into a poor family or not.
146. With equal training and education, a poor boy would have much less chance of getting a good job than would a boy from a wealthier family.
147. Many people who are born poor can rise to positions of wealth and power through their own honest abilities and efforts.
148. People who were born poor and have risen to positions of

wealth and power were either crooked or had the help of some wealthy person.

149. Nowadays a person has to live pretty much for today and let tomorrow take care of itself.
150. This world is run by the few people in power, and there is not much the poor man can do about it.
151. To be successful, a businessman has to be crooked.
152. Who you know is more important than what you know in getting a good job.
153. Children are a nuisance to their parents.
154. Things are getting better for the poor man.
155. People like me can change the way things are if we make ourselves heard.
156. Most public officials are really interested in the problems of the poor man.
157. Planning only makes a person unhappy since your plans hardly ever work out anyway.
158. These days a person doesn't really know whom he can count on.
159. The average poor man has a say in government decisions.
160. Judges can be "fixed" for the right price.
161. It's hardly fair to bring a child into the world with the way things look.
162. Politicians have to bribe people.
163. In spite of what some people say, the condition of the poor man is getting worse.
164. This world could not run without the help of the poor man.
165. Most people don't really care what happens to the other fellow.
166. In getting a good job, it's necessary to say you're better than you are.
167. More and more I feel helpless in the face of what's happening in the world today.
168. You sometimes can't help wondering whether anything is worthwhile anymore.
169. Most people in public office are not really interested in the problems of the poor man.

Do you know anyone else in this block who has a child going to school for the first time this September who was not in HEAD START?
Do you think they would have sent him/her?

How well do you know the family?

| Name | Address | Would send | Would not | How well known |
|---|---|---|---|---|
| | | | | |

______________________________ ______________, 19

Interviewer Date

OED-1274

## THE CHILD ... TEST RESULTS

### PREPARATION AND PROCEDURES

The final phase of the Teacher-Pupil-Parent Interaction Study was to test the children on whom family and public-school data were available. If the child had attended Head Start, data on the Head Start teacher were included. 282 children were tested; but complete data were available for only 160 of these.

The testing materials, described below, were designed and pretested before use. A manual was prepared for each experimenter; demonstrations of testing procedures presented; and each experimenter spent a minimum of one week practicing administering the tests. Inasmuch as all statements by the experimenter and all statements by the respondents were taped, it was possible to check the practice sessions with each experimenter until all were ready to administer the tests to meet the standards set.

### TESTING MATERIALS

The testing materials consisted of 8mm. movie films of 13 brief situations, each aimed at one or more theoretically relevant aspects of the child's behavior. The scenes and the rationale for their inclusion were:

#### Physical Causality

Five scenes related to the child's conception of physical causality and to his reaction to events that run counter to these conceptions.

The first two scenes involved displacement and

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recession of water by the placement and withdrawal respectively of varying sized stones in a water tank. The child was asked to explain why the water rose in the first instance and fell in the latter.

The third scene consisted of demonstrating that one block of wood floated in the water and a second block, which unknown to the child was loaded with lead, sank in the water. After eliciting a response from the question of why the first block floated, the weighted block was placed on top of the first one and both sank to the bottom. The child was asked then to account for why both blocks sank.

The fourth and fifth scenes involved a rudimentary bridge. In the first instance it fell when one of its two supporting legs was withdrawn. In the second instance, through activation of an unseen magnet, the bridge did not fall when left to stand only on one leg. The child was asked to explain why the bridge fell in one case and stood in the other.

## Rule Awareness and Reaction to Violation

Four scenes were concerned with child's awareness of rules and his response to their violation.

In the first of these a child unobtrusively cheated at a specially devised game of running around a tire.

The second, third and fourth scenes in these series depicted the same little boy manifesting contradictory behavior, that of dumping the sand out of other children's truck, pushing a little girl out of line and sharing a candy bar with his peers.

These scenes yielded a measure of the child's awareness of rules, his response to their violation and his ability to account for the simultaneous possession of positive and negative characteristics (bad-good boy) in the same person.

## Moral Absolutism

This was measured by two scenes both of which relate to the immediately preceding ones. However, the aim of these two scenes were aimed at testing an assertion by Piaget that children of ages comparable to those in this study do not distinguish between intentionality and accident in their evaluation and "moral" response. Thus in one scene a little boy was helping his mother clear dinner dishes from the table when he clearly stubbed his foot, fell and smashed the dishes. In the other scene the same boy, when his mother turns her back, deliberately breaks the dishes by jerking them and the cloth from the table.

The child is asked to give his interpretation of the goodness-badness of the two situations and to indicate what should happen to the dish breaker in each instance.

## Awareness of Social Roles and Reaction to their Violation

In the first of the two scenes aimed at assessing this, a female teacher appears on the playground eating an ice cream bar. She drops the ice cream in a sandbox where children are playing and has a temper tantrum.

In the second scene a little boy gives a bottle filled with milk to a father who quits sucking his thumb and, lying on his back begins to suck the bottle.

In addition to the 13 filmed scenes, the children responded to Card X from the child's Rorschach test. These responses were scored to yield measures of a child's novelty, openness, etc., criteria that were thought to relate to creative ability and abstractness.

Guided by the same theoretical rationale that resulted in the testing materials, rating scales of 275 items were constructed to be used in scoring the tape recorded responses of the children to the movie scenes. The rating dimensions were aimed at tapping the child's efficiency in communication, accuracy of descriptions of events before and after the experimenters' statements, novelty of proposed solutions, affect, punitiveness, oughtness of rules and roles, knowledgeability, and ability to tolerate conflicting characteristics in the same person.

Judges were trained to make judgments of the child's responses in pairs, it having been found in several of our previous studies that both validity and reliability of the scales were enhanced by two judges instead of one.

Reliability checks run before judging commenced were .832.

Dependent Variables

Of the original 275 items used for scoring the tapes because of the homogeneity within our subject population only 67 items had sufficient variance to be used in subsequent analyses. These were factor analyzed using Tryon's system of cluster analysis (Tryon & Bailey, 1965; Tryon & Bailey, 1966). Five clusters were generated which accounted for 67% of the initial communality and 89% of the mean square of the raw correlation matrix. These factors were labeled Cognitive Attainment, (CA); Role/Rule Absolutism (RRA); Punitiveness (P); Overall Oughtness (OO), and Tendency to Perseverate (TP). They, their representative items, and factor coefficients are in Table 1.

Table 1 About Here

These factors and the child's I.Q. were the dependent variables used in subsequent analyses.

Independent Variables

Four different sets of variables provided the data for analysis. First, information regarding family status, and aspirations. These included nine factors, six satisfaction scores, five hope-expectancy scores and 3 additional factors listed under "Family" in Appendix A.

Second, a group of variables describing the child's also listed in Appendix A.

Third, a set of variables describing the beliefs of the Head Start teacher and/or those of the teacher in whose class the child was placed in the subsequent school year.

These beliefs, their assessment and description are detailed in part one of this report, "Teachers' beliefs, classroom atmosphere and student behavior." This same report gives more detailed information on the set of 3 factors describing the classroom atmosphere experienced by the child listed last in Appendix A.

## RESULTS

The initial approach to the data was to use "t" tests and 3-way analyses of variance. The former approach yielded a wealth of significant "t"'s and the latter $\binom{42}{3}$ sets of 3 way analyses of variance which it was virtually impossible to integrate. A step wise multiple regression procedure (Efroymson, 1962; Draper & Smith, 1966) was selected to overcome both problems. Such a procedure (a) removed the variance from one (or more) independent variables before ascertaining the effects of another; and (b) made it possible to evaluate the effects of all independent variables simultaneously.

The correlation matrix for the independent (predictor) and dependent (criterion) variables is displayed in Table 2.

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Table 2 About Here

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Three dependent variables yielded multiple R's both significant ($p \leq .01$), and large enough ($R \geq .30$) to warrant further consideration. They were I.Q., Cognitive attainment,* and Overall Oughtness.

Three independent variables produced a multiple R of .39 and accounted for 15% of the variance on I.Q. The analysis of variance is summarized in Table 3.

Table 3 About Here

The data suggest that (a) Caucasian children who (b) have a teacher who is more resourceful and who (c) came from a family with higher hopes, expectations, etc., with respect to the child's economic future (CEF), will tend to have a higher I.Q. than their counterparts. The regression coefficients** were: Ethnic status (-.34); Resourcefulness (.18); and CEF (.17).

Two variables yielded a multiple R of .59 and predicted 35% of the variance of Cognitive Attainment. The analysis of variance is summarized in Table 4.

Table 4 About Here

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* I.Q. included as a predictor or independent variable for all criterion variables other than itself.

** these regression coefficients and those listed subsequently were based on predictions to standardized scores.

The data indicate that children who (a) have higher I.Q., and (b) who are in first grade tend to be higher on Cognitive attainment. The regression coefficients were: I.Q. (.41), and Grade (.38).

Four variables predicted 14% of the variance and produced a multiple R of .37 on Overall Oughtness. Table 5 summarizes the analysis of Variance.

Table 5 About Here

The data suggest that the children higher in Overall Oughtness came from families showing (a) less satisfaction with father's church attendance, (b) less anomie or general pessimism, and (c) higher hopes, expectancies, etc., regarding the child's economic future (CEF), and had (d) a teacher higher in distrust of social authority (DSA). The regression coefficients were: Satisfaction with father's church attendance (-.18); Anomie-general pessimism (-.17), DSA (.17); and CEF (.17)

## TABLE 1

## RATING TAPE CLUSTERS

| I | COGNITIVE ATTAINMENT | OBL.FAC.COEF. |
|---|---|---|
| 228 | Overall knowledgeability | 0.94 |
| 225 | Clarity of child's ideas | 0.88 |
| 229 | Accuracy of answers (what happened) | 0.85 |
| 227 | Knowledge of social events | 0.84 |
| 232 | Richness of ideas | 0.83 |
| 241 | Self confidence | 0.82 |
| 226 | Accuracy of vocab. for physical obj. | 0.79 |
| 243 | Enjoyment of tasks | 0.78 |
| 230-231 | App/novelty | 0.73 |
| 8 | O'all adequacy of description | 0.69 |
| 20-21 | | 0.60 |
| 68 | G.P. before E's description | 0.57 |
| 224 | Clarity of child's speech | 0.55 |
| 218 | O'all quality Rorschach | 0.53 |
| 35 | Logical deduction (recog.cause effect) | 0.52 |
| 140 | Getting the point (Acc. dish breaking) | 0.51 |
| 7 | Sit. 5 Physical Causation | 0.49 |
| 73 | Getting point (BBad.Good boy) | 0.45 |
| | | |
| II | ROLE/ RULE ABSOLUTISM | |
| 186-168 | Role violation Daddy | 0.88 |
| 185 | Awareness of violation | -0.82 |
| 192 | Absolutism of role concept(vio-Dad) | 0.73 |
| 236 | Oughtness of roles | 0.69 |
| 105 | Absolutism of role concept (vio.-teacher) | 0.47 |
| | | |
| III | PUNITIVENESS | |
| 157 | Severity of acc. dish brkg. punish. | 0.78 |
| 235 | Punitiveness (O'all) | 0.69 |
| 178 | Severity of del. dish brkg.punish | 0.52 |
| | | |
| IV | NEGATIVE AFFECT & OVERALL OUGHTNESS | |
| 234 | Oughtness of rules | 0.84 |
| 233 | Negative affect produced by rule violation | 0.81 |
| 72 | Negative reaction to rule violation | 0.73 |
| 65 | Severity of punishment | 0.53 |
| | | |
| V | TENDENCY TO PERSEVERATE | |
| 239 | Tendency to misperceive or misinterpret | 0.66 |
| 240 | Tendency to perseverate across tasks | 0.66 |
| 237 | Discomfort produced by role violations | 0.37 |

|  | SFI | SHJ | SHRE | SHSE | SHRC | SHSC | SCC | FESO | CEF | EA | FGP | FPR | HEFI | HECI | HEHW | HECW | HECE | FH | EMP | ASST | JOS | CG | MFC | FCN | SEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SHJ | -28 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SHRE | -13 | -09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SHSE | 09 | -08 | 44 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SHRC | 14 | -04 | -01 | 04 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SHSC | 18 | -05 | 02 | 01 | 59 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SCC | 19 | -01 | -05 | 03 | 76 | 52 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FESO | 25 | -09 | -10 | 04 | 11 | -03 | 09 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CEF | 13 | 05 | -16 | -07 | -09 | -08 | -03 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EA | 02 | -06 | -19 | -13 | 06 | -01 | 09 | 30 | 34 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FGP | -04 | 13 | 04 | 11 | 07 | 02 | 10 | -15 | -00 | -06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FPR | 05 | -05 | 10 | 06 | 61 | 46 | 57 | 10 | 02 | 11 | 02 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HEFI | 11 | -12 | -00 | -02 | 16 | 06 | 10 | 62 | 21 | 31 | 19 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HECI | 08 | 01 | -07 | -07 | -04 | -09 | 10 | 16 | 39 | 21 | -07 | -06 | 30 |  |  |  |  |  |  |  |  |  |  |  |  |
| HEHW | 13 | -03 | -12 | 00 | 08 | 11 | 03 | 12 | 13 | 17 | -13 | -02 | 17 | 07 |  |  |  |  |  |  |  |  |  |  |  |
| HECW | 02 | -06 | -14 | -05 | 07 | 02 | 12 | 13 | 20 | 32 | -13 | 06 | 19 | 25 | 11 |  |  |  |  |  |  |  |  |  |  |
| HECE | 15 | -03 | -30 | -20 | 10 | 08 | 09 | 21 | 35 | 68 | -00 | 06 | 24 | 28 | 12 | 36 |  |  |  |  |  |  |  |  |  |
| FH | 02 | -00 | 13 | 04 | -28 | -09 | -23 | -31 | -09 | -21 | -04 | -19 | -31 | -12 | -03 | -14 | -18 |  |  |  |  |  |  |  |  |
| EMP | 21 | 04 | 14 | 05 | -13 | -04 | -12 | -39 | -06 | -20 | -01 | -12 | -34 | -13 | -01 | -13 | -17 | 64 |  |  |  |  |  |  |  |
| ASST | 16 | -01 | -14 | 01 | 12 | 01 | 06 | 36 | 08 | 17 | 06 | 08 | 34 | 18 | 03 | 15 | 21 | -67 | -73 |  |  |  |  |  |  |
| JOS | 10 | -05 | -01 | 08 | 26 | 08 | 22 | 32 | 04 | 25 | -10 | 20 | 30 | 08 | 24 | 16 | 13 | -52 | -37 | 41 |  |  |  |  |  |
| CG | 04 | 04 | 05 | 02 | 35 | 23 | 31 | -05 | -19 | -02 | 04 | 25 | -06 | -01 | -03 | 00 | 05 | -08 | -09 | -07 | 01 |  |  |  |  |
| MFC | -03 | -06 | 13 | 03 | 12 | 20 | 07 | 11 | -02 | 05 | -00 | 16 | 19 | 03 | 00 | 05 | 03 | -03 | 07 | -01 | 05 | 09 |  |  |  |
| FCN | 10 | -02 | 06 | 03 | 02 | 02 | 02 | 08 | 16 | 00 | 01 | 07 | -03 | 03 | -04 | 03 | 08 | -00 | 04 | -02 | 01 | 04 | -01 |  |  |
| SEX | 09 | 04 | -06 | 01 | -16 | -15 | -04 | -06 | 24 | -03 | 03 | -04 | -07 | 26 | 02 | 06 | 07 | 03 | 04 | -03 | -01 | -10 | -07 | 03 |  |
| HS | 05 | -14 | 01 | -01 | -07 | 05 | -13 | -01 | -07 | -12 | -07 | 01 | 06 | -08 | -08 | -03 | -04 | 00 | -07 | 02 | -02 | 04 | 11 | -12 | -06 |

|  | SFI | SHJ | SHRE | SHS | SHR | SHS | SC | FES | CEF | EA | FGP | FP | HEF | HECI | HEH | HEC | HEC | FH | EMPA | SST | JOS | CG | MFC | FCN | SEX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HSS | 02 | -01 | 03 | 01 | -02 | 06 | -15 | -00 | -15 | -06 | -02 | 02 | 09 | -03 | -13 | -11 | -02 | -05 | -14 | 12 | 09 | -02 | 09 | -09 | -09 |
| PS | -05 | -07 | 10 | 11 | -03 | -02 | -06 | 00 | -06 | -11 | -09 | 00 | -00 | 04 | 04 | 06 | -14 | 03 | 00 | -09 | -05 | 10 | 01 | 08 | 04 |
| GRD | 07 | -00 | -05 | 00 | 10 | -02 | 13 | 18 | 11 | 16 | 07 | 02 | 14 | 10 | 09 | 09 | 09 | -22 | -22 | 20 | 18 | -03 | 06 | 06 | 02 |
| ETH | 03 | 06 | 11 | 03 | 02 | 16 | 03 | -22 | -01 | -07 | 22 | 15 | -19 | -15 | -18 | -15 | 05 | 26 | 24 | -20 | -24 | 12 | -04 | 04 | -11 |
| DFC | -02 | 07 | 01 | -01 | -06 | 07 | -02 | -23 | -02 | -11 | 02 | -02 | -17 | -04 | -03 | -08 | -11 | 19 | 07 | -16 | -12 | 10 | 01 | 01 | -01 |
| NS-C | -14 | 11 | -01 | -85 | -05 | -32 | -02 | -24 | -02 | -22 | -06 | -04 | -20 | 03 | -01 | -07 | -15 | 15 | 12 | -10 | -12 | 04 | 01 | -05 | 03 |
| NS-D | -12 | 10 | 02 | -01 | -06 | 01 | -01 | -20 | -00 | -11 | 01 | -01 | -14 | 10 | -09 | 01 | -13 | 12 | 07 | -06 | -08 | 05 | 11 | -01 | 10 |
| OSA | -02 | 08 | 01 | 08 | -02 | -12 | 01 | 02 | 13 | -01 | -04 | -07 | 06 | 08 | 04 | 02 | 04 | -07 | 03 | 05 | -01 | -11 | -00 | 01 | 03 |
| FA | -08 | 10 | -06 | 02 | -13 | 03 | -17 | -15 | -04 | -12 | -01 | -16 | -08 | 12 | -01 | -03 | -04 | 22 | 16 | -08 | -10 | -01 | 04 | -07 | -00 |
| MA | -10 | 14 | 04 | -12 | -05 | -09 | -05 | 01 | 07 | -02 | 01 | 01 | 01 | 00 | -06 | -04 | -05 | -03 | -08 | 01 | 04 | 00 | 05 | 08 | -02 |
| TGP | -05 | -08 | 03 | 01 | -03 | 07 | 02 | -27 | 11 | -01 | -11 | 06 | -16 | -01 | 01 | -09 | 18 | 16 | -17 | -17 | 18 | -00 | 03 | -06 | -07 |
| ABSTR | 07 | -06 | -03 | 01 | 07 | -01 | 03 | 25 | 00 | 16 | 01 | -01 | 19 | 00 | 06 | 08 | 15 | -20 | -12 | 15 | 12 | -07 | -02 | -01 | -07 |
| DICT | -06 | 00 | 00 | -05 | 01 | -00 | 12 | 05 | -01 | -09 | 03 | 15 | -80 | -02 | 06 | -03 | -10 | -06 | -11 | 09 | 15 | -13 | 15 | 06 | 10 |
| RESO | 08 | -04 | 03 | -00 | 03 | 03 | -05 | 00 | 02 | -03 | -08 | -00 | 02 | -04 | 01 | 05 | 03 | 10 | 11 | -16 | -14 | 11 | -08 | -04 | -12 |
| PUNIT | -11 | -02 | 01 | -00 | 02 | -04 | 12 | -04 | 02 | 06 | -00 | -19 | -07 | -00 | 06 | 01 | -14 | -06 | -06 | 06 | 09 | -06 | 10 | 03 | ( |
| CA | -01 | 05 | -14 | -07 | 00 | -11 | 02 | 20 | 10 | 14 | -06 | -10 | 10 | 18 | 13 | 20 | 13 | -15 | -18 | 15 | 17 | 02 | -05 | -06 | 09 |
| RRA | -03 | -03 | -02 | -05 | -16 | -21 | -13 | 13 | 20 | 16 | -18 | -07 | 07 | 17 | -06 | 03 | 11 | -04 | -05 | 02 | -01 | 02 | -10 | -02 | -05 |
| OO | -08 | -01 | -01 | -02 | -03 | -18 | -05 | 09 | 12 | 00 | -11 | -14 | 02 | 13 | 10 | 14 | 02 | -09 | -11 | 04 | 04 | -02 | 01 | 03 | 13 |
| IQ | -02 | 01 | -02 | -01 | -09 | -16 | -11 | 11 | 18 | 11 | -13 | -07 | 14 | 14 | 14 | 15 | 08 | -09 | -01 | 00 | 15 | 01 | -09 | 11 | 13 |
| P | -02 | -03 | 6 | 01 | -01 | -03 | 01 | 07 | 09 | 08 | -05 | -02 | 05 | 03 | 04 | 05 | 02 | 02 | -01 | -00 | 06 | -02 | 02 | -01 | 10 |
| TP | -08 | -07 | 11 | 12 | -02 | -01 | -05 | -06 | 03 | -13 | 09 | -07 | -08 | -06 | -09 | -11 | -04 | -03 | 03 | -06 | -09 | 07 | -00 | -07 | -10 |

| | HS | HSS | PS | GRD | ETH | DFC | NS-C | NS-O | OSA | FA | MA | TGP | DICT | RESO | | CA | RRA | OO | IQ | P | TP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HSS | 66 | | | | | | | | | | | | | | | | | | | | |
| PS | 12 | -07 | | | | | | | | | | | | | | | | | | | |
| GRD | -25 | -17 | -13 | | | | | | | | | | | | | | | | | | |
| ETH | 12 | 06 | -15 | -51 | | | | | | | | | | | | | | | | | |
| DFC | 05 | -10 | -27 | -20 | 12 | | | | | | | | | | | | | | | | |
| NS-C | -01 | -19 | -12 | -16 | 02 | 65 | | | | | | | | | | | | | | | |
| NS-O | -03 | -11 | -09 | 02 | -08 | 62 | 74 | | | | | | | | | | | | | | |
| OSA | -03 | -01 | -21 | 02 | -06 | -12 | 02 | -17 | | | | | | | | | | | | | |
| FA | 06 | 07 | -02 | -27 | 06 | 344 | 35 | 41 | -16 | | | | | | | | | | | | |
| MA | -07 | -03 | -26 | 07 | -03 | 40 | 27 | 32 | 04 | -11 | | | | | | | | | | | |
| TGP | 02 | -16 | -00 | -11 | 00 | 35 | 36 | 31 | 21 | -04 | 14 | | | | | | | | | | |
| ABSTR | -01 | 14 | 19 | 16 | -09 | -87 | -84 | -78 | 11 | -35 | -35 | -36 | | | | | | | | | |
| DICT | 06 | 06 | -09 | 09 | -18 | 07 | 09 | 06 | 27 | -11 | 21 | 13 | -08 | | | | | | | | |
| RESO | 08 | -02 | 43 | -49 | 28 | -17 | -11 | -34 | -16 | 12 | -30 | -14 | 19 | -54 | | | | | | | |
| PUNIT | 05 | 03 | -02 | 14 | -16 | -04 | 09 | 14 | 28 | -18 | 05 | 24 | -05 | 81 | -54 | | | | | | |
| CA | -17 | -09 | -01 | 43 | -41 | -05 | -03 | 06 | -01 | -01 | 05 | -16 | 05 | 09 | -22 | 10 | | | | | |
| RRA | -08 | -05 | -02 | 02 | -08 | -01 | 01 | 02 | 22 | 02 | 03 | 00 | -00 | -02 | -02 | -02 | 22 | | | | |
| OO | -14 | -07 | -01 | 23 | -34 | -03 | 08 | 13 | 00 | 02 | 05 | -17 | -03 | 04 | -14 | 04 | 47 | 33 | | | |
| IQ | -14 | -12 | 07 | 13 | -29 | -02 | -04 | -09 | 04 | -02 | 02 | -13 | 05 | -03 | 09 | -06 | 45 | 16 | 28 | | |
| P | -03 | -06 | -03 | 08 | -06 | -01 | 01 | -00 | 01 | -01 | 02 | 03 | -01 | 05 | -07 | 02 | 09 | 10 | 17 | 03 | 06 |
| TP | 05 | -04 | -08 | -03 | 09 | 05 | 09 | 04 | 08 | -01 | 00 | 02 | 06 | -01 | -06 | -02 | -12 | 09 | 10 | -05 | 54 |

## TABLE 3

## SUMMARY OF REGRESSION ON IQ

| SOURCE | SS | DF | MS | F |
|---|---|---|---|---|
| Regression | 23.71 | 3 | 7.90 | 9.11 |
| Residual | 135.29 | 156 | .87 | |

$F_{3/120} = 3.95$, $p \doteq .01$

## TABLE 4

## SUMMARY OF REGRESSION ON COGNITIVE ATTAINMENT

| SOURCE | SS | DF | MS | F |
|---|---|---|---|---|
| Regression | 55.24 | 2 | 27.62 | 41.79 |
| Residual | 103.76 | 157 | .66 | |

$F_{2/120} = 6.85$, $p = .01$

## TABLE 5

## SUMMARY OF ANALYSIS OF VARIANCE ON OVERALL OUGHTNESS

| SOURCE | SS | DF | MS | F |
|---|---|---|---|---|
| Regression | 22.30 | 4 | 5.58 | 6.32 |
| Residual | 136.70 | 155 | .88 | |

$F_{4/120} = 3.48$, $p = .01$

# APPENDIX A

## Independent Variable

### FAMILY

| | |
|---|---|
| Family Economic Status (FESO) | High Score High FESO |
| Child's Economic Future (CEF) | " " CEF |
| Educational Aspirations (EA) | " " EA |
| Anomie-General Pessimism (GP) | " " GP |
| Family Contact with Neighbors (FCN) | " " FCN |
| Mother's Family Contacts (MFC) | " " MFC |
| Closeness to God (CG) | " " CG |
| Family Participation in Religion (FPR) | " " FPR |
| Job-Outlook-Status (JOS) | " " JOS |
| Mother Satisfaction with Family Income (SFI) | " " SFI |
| " " " husband's job (SHJ) | " " SHJ |
| " " " her education (SHRE) | " " SHRE |
| " " " husband's education (SHSE) | " " SHSE |
| " " " her church attendance (SHRC) | " " SHRC |
| " " " husband's church atten.(SHSC) | " " SHSC |
| " " " child's church atten.(SCC) | " " SCC |

| | | | | |
|---|---|---|---|---|
| Hope-Expectancy, Family Income (HEFI) | 1=LL, | 2=Lh, | 3=Hl, | 4=HH |
| " " Child Income (HECI) | " | " | " | " |
| " " Husband's kind job (HEHW) | " | " | " | " |
| " " Child's kind job (HECW) | " | " | " | " |
| " " Child's Education (HECE) | " | " | " | " |

| | |
|---|---|
| Father at Home (FH) | Yes = 1, no = 2 |
| Anyone employed (EMP) | Yes = 1, no = 2 |
| Receives Public Assistance (ASST) | Yes = 1, no = 2 |

### CHILD

| | |
|---|---|
| Sex (SEX) | Female = 1, Male = 2 |
| IQ | Peabody Picture Vocab. Test |
| Head Start Status (HS) | Head Start = 1, No Head Start = 2 |
| Ethnic Status (ETH) | Caucasian = 1, Span.Neg. = 2 |
| Grade (GRD) | Kindergarten = 1, First Grade = 2 |

## APPENDIX A [redacted] (Continued)

## TEACHER

Head Start Teacher
System - TIB (HSS) Concrete = 1, Abstract = 3 or 4
Present Teacher
System - TIB (PS) " " " " "
Divine Fate Control (DFC)
Need for Simplicity-Consistency (NS-C)
Need for Structure-Order (NS-O)
Distrust of Social Authority (DSA)
Friendship Absolutism (FA)
Moral Absolutism (MA)
General Pessimism (GP)
Abstractness (ABSTR)
Dictatorialness (DICT)
Resourcefulness (RESO)
Punitiveness (PUNIT)